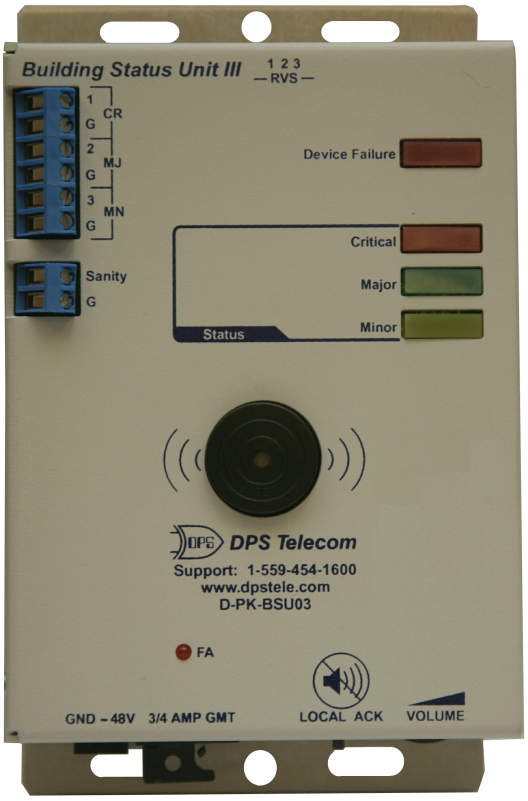
DPS Telecom

"Your Partners in Network Alarm Monitoring"

Building Status Unit III

USER MANUAL



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January 4, 2013 **D-UM-BSU03** **Firmware Version 1.0A**

Revision History

January 4, 2013	Updated to reflect significant hardware upgrades.
September 19, 2012	Added alternative notification option.
October 11, 2011	Building Status Unit III Manual D-UM-BSU03 released.

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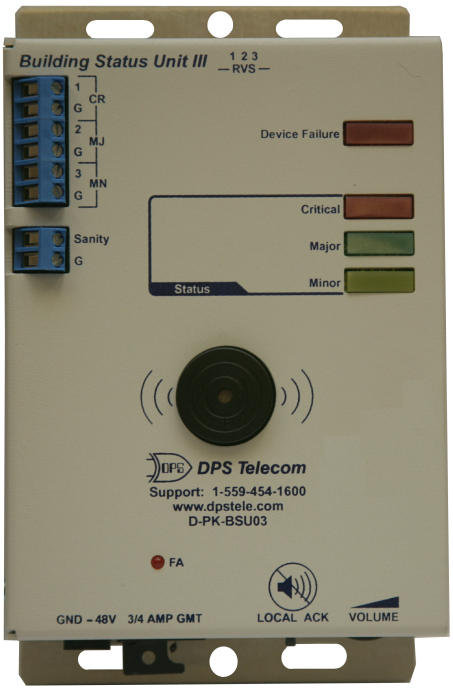
1 Introduction



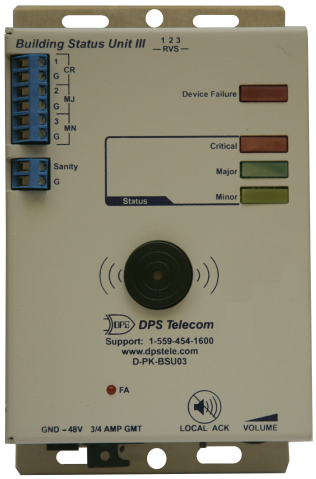
Building Status Unit III

The Building Status Unit III (BSU III) is a local alarm notification device. The BSU III monitors three discrete alarms. All information in this manual applies to all BSU models, unless otherwise noted.

The BSU receives alarm input from another device and provides audio/visual notification for local personnel. Alarms are displayed as either critical, major, or minor severity levels. The BSU provides local notification of alarms through its integrated 3 alarm notification LEDs and an audible speaker signal. Audio/visual notifications are acknowledged by pressing the Local ACK button on the bottom of the unit. The speaker can be silenced using the volume control. You can also reverse the input polarity of the alarms.

2 Shipping List

While unpacking the Building Status Unit, please make sure that all of the following items are included. If some parts are missing, or if you ever need to order new parts, please refer to the part numbers listed and call DPS Telecom at **(800) 622-3314**.



Building Status Unit III
D-PK-BSU03-12004

User Manual
D-UM-BSU03

One 3/4 Amp GMT Fuse
2-741-00750-00

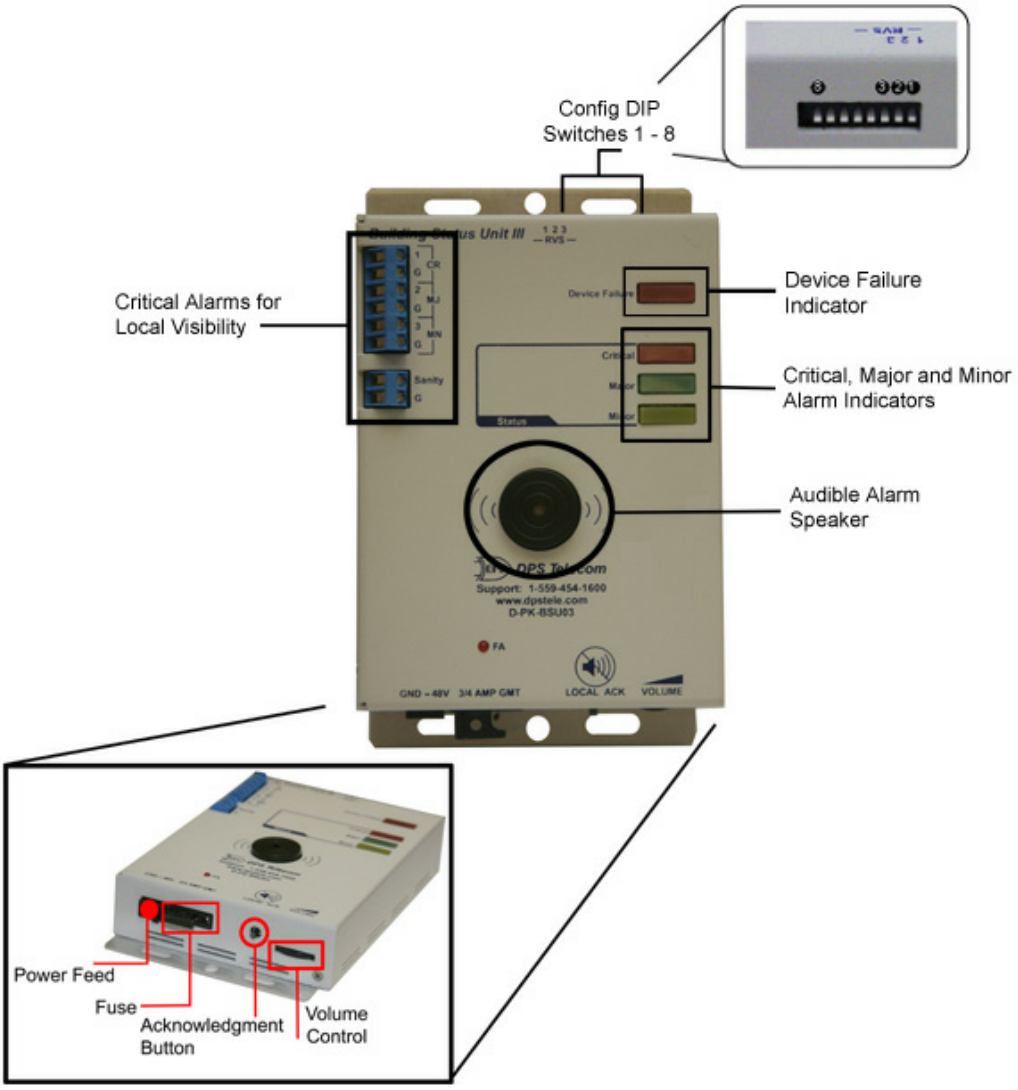
Power Screw Lug Barrier Plug
1-820-00862-00

Two Wood Screws
1-000-80750-50

3 Specifications

Dimensions:	5" H x 4" W x 2" D (12.7 cm x 10.2 cm x 5.1 cm)
Weight:	3 lbs (1.4 kg)
Mounting:	Wall mount
Power Input:	–48 VDC
Current Draw:	250 mA @ -48 VDC
Fuse:	3/4 Amp GMT
Alarm Detection Speed:	100 msec
Visual Alarm Display:	4 unicolor LEDs
Speaker output volume:	0 - 85 dB @ 1 meter
Operating Temperature:	32° to 140° F (0° - 60° C)
Operating Humidity:	0%–95% noncondensing
MTBF:	60 years

4 Features of the BSU III



The features of the Building Status Unit III

5 Installation

5.1 Tools Needed

To install the Building Status Unit, you'll need the following tools:

Wire Strippers/Cutter

Small Standard No. 2 Screwdriver

5.2 Mounting

To mount the Building Status Unit, drive the two included wood mount screws. Mount the BSU by attaching the mounting template cutout to the back of the unit and placing the unit on the two wood screws. Press the unit back to secure it to the wall.

5.3 Power Connection

To connect the Building Status Unit to a power source, follow these steps:

1. Remove the fuse from the bottom panel of the BSU and make sure that the power supply to the unit is off.
2. Remove the screw lug barrier plug from the bottom panel of the BSU.
3. For a BSU –48VDC unit, connect a –48VDC line to the –48V terminal and a battery ground to the GND terminal of the screw lug. Seat the barrier screws firmly, but be careful not to nick the bare wire.
4. Push the plug firmly back into its socket. Note that this connection is keyed and the plug must be properly aligned within the socket.
5. With the BSU fuse still removed, turn on the power supply.
6. On the BSU –48VDC unit, the voltmeter should read between –44 to –56.5 VDC. If the reading is outside this range, check your power supply.
7. Do not power the unit until all connections have been made.
8. Insert the fuse to power the BSU.

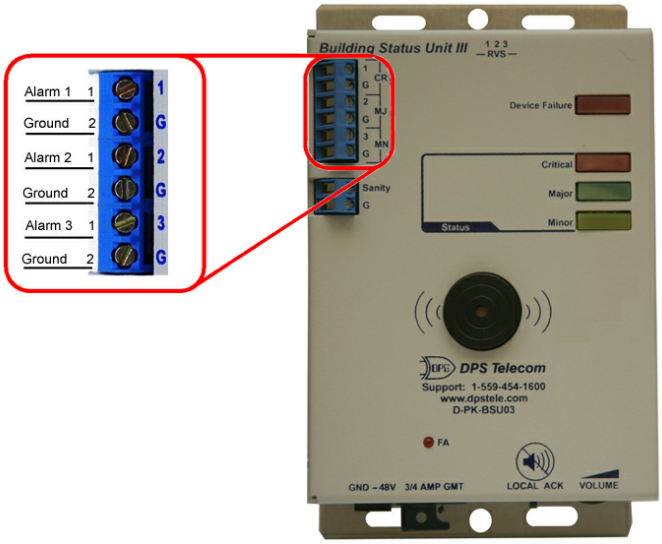
5.4 Alarm Connections

Alarm Input Connectors

Alarm connections are located on the left side of the front panel of the Building Status Unit.

5.4.1 Alarm Inputs

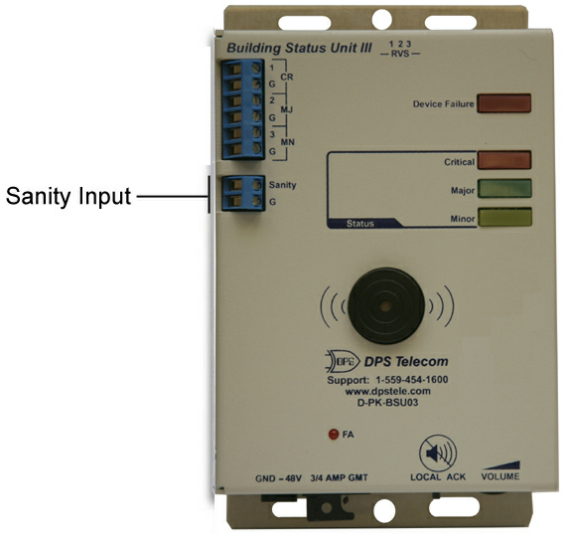
Alarm inputs are connected to the BSU via screw-lug terminals.



Alarm Input pinouts

5.4.2 Sanity Input

The Sanity Input is connected to the BSU via screw-lug terminals directly below the alarm inputs.



6 Operation

6.1 Discrete Alarms

The BSU receives input from monitored devices and provides local notification.

The BSU receives alarm input from another device relay output, and provides audiovisual notification to local personnel.

When the BSU receives an alarm input, the LED corresponding to the activated alarm point will **FLASH** and the speaker will sound.

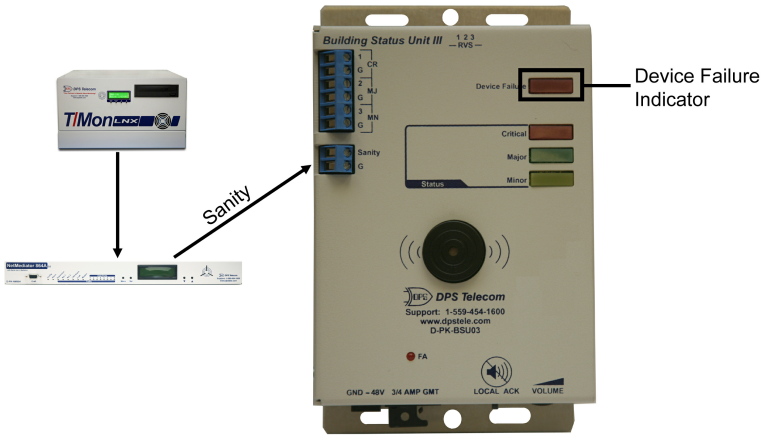
To acknowledge the alarm and silence the speaker, press the LOCAL ACK button on the bottom panel of the unit. The alarm LED will turn **SOLID** to indicate that the alarm has been acknowledged but is still standing. The speaker will sound again upon clearing and the LED will blink until the ACK button is pressed.

The speaker is set at the factory to the maximum volume. You may adjust the volume of the alarm with the Volume Control wheel located on the bottom panel of the BSU.

The input polarity of the discrete alarms can be reversed using the configuration DIP switches on the top panel. See Section 7.1, "Alarm Input Polarity Settings," for instructions.

The behavior of the speaker and LED for alarm clear events can be altered using the DIP switches on the top panel. See section 7.2, "Alarm Notification Settings," for instructions.

6.2 Sanity Mode



Sanity Mode is an alarm input used to measure the connection between T/Mon and the device directly connected to the BSU (via the Sanity input).

When Sanity Mode is ON, T/Mon will instruct the connected device to toggle a relay. See Section 7, "Configuration" for details on how to adjust the frequency of this polling.

If there is a problem between T/Mon and the connected device, and no relay toggles, the BSU will sound an audible alarm, which will be visible through the Device Failure LED.

Note: The Device Failure LED indicator only refers to the Sanity Input.

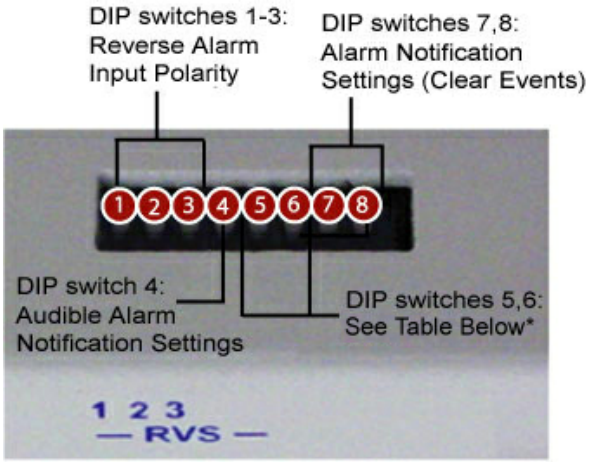
To acknowledge the alarm and silence the speaker, press the LOCAL ACK button on the bottom panel of the unit. The alarm LED will turn **SOLID** to indicate that the alarm has been acknowledged but is still standing. The speaker will sound again upon clearing and the LED will blink until the ACK button is pressed.

The speaker is set at the factory to the maximum volume. You may adjust the volume of the alarm with the Volume Control wheel located on the bottom panel of the BSU.

The input polarity of the discrete alarms can be reversed using the configuration DIP switches on the top panel. See Section 7.1, "Alarm Input Polarity Settings," for instructions.

The behavior of the speaker and LED for alarm clear events can be altered using the DIP switches on the top panel. See section 7.2, "Alarm Notification Settings," for instructions.

7 Configuration



Configuration of DIP switches

All user-adjustable options on the Building Status Unit can be set using the DIP switches on the left side panel of the unit. The BSU ships with all DIP switches set in the **DOWN** or **OFF** position, which represents the default settings for all options.

When the DIP switches are used to configure the BSU, the unit will automatically reboot itself so that the changes take place immediately.

The table below summarizes all of the BUS's DIP switch settings.

	DIP Switch Settings							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Function	Discrete Alarm Input Polarity Selection			Audible Alarm Notification Settings	*See table below**		Alarm Notification Settings (Clear Events)	
UP	Alarm 1 NC	Alarm 2 NC	Alarm 3 NC	Enable Alternative Notification			Disables LED (Default)	Disables Speaker (Default)
DOWN	Alarm 1 NO (Default)	Alarm 1 NO (Default)	Alarm 1 NO (Default)	Enable Standard Notification			Enables LED	Enables Speaker

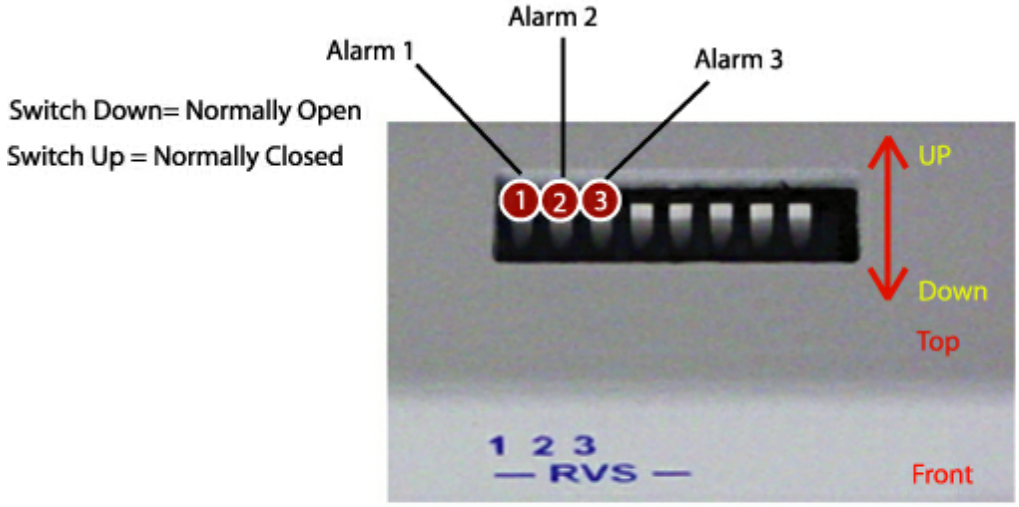
DIP switch options

***DIP Switch 5, 6**	
0 0	Sanity Mode Off
0 1	30 Second Poll
1 0	60 Second Poll
1 1	4 Min Poll

Standard Audible Notification		
Minor	**Major**	**Critical**
Slow beep	Slow beep	Rapid beep

Alternative Audible Notification		
Minor	**Major**	**Critical**
Slow beep	Rapid beep	Continuous tone

7.1 Alarm Input Polarity Settings

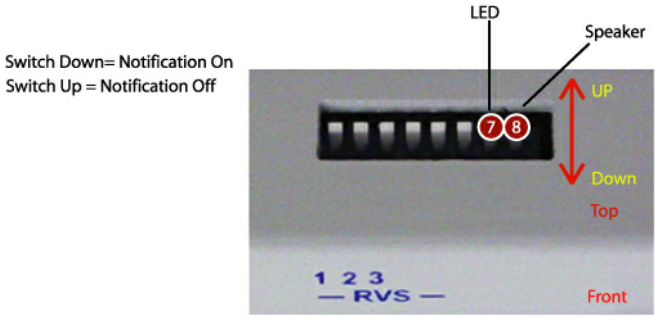


DIP switches 1–3 set the discrete alarm inputs for normal or reversed polarity

The polarity of the three discrete alarm inputs can be reversed using DIP switches 1–3. The DIP switch numbers match the numbers of the alarms they control, so Switch 1 controls Alarm 1, Switch 2 controls Alarm 2, and Switch 3 controls Alarm 3.

When the switch is angled **DOWN**, the alarm input is **Normally Open**. (This is the **DEFAULT** setting.) When the switch is angled **UP**, the alarm input is **Normally Closed**.

7.2 Alarm Notification Settings



DIP switches 7 and 8 enabled/ disabled alarm notifications

The speaker and LED alarm clear events can be enabled/ disabled using DIP switches 7 and 8 as seen in the DIP switch options table in section 7 "Configuration".

When the switch is angled **DOWN**, the alarm clear events is enabled. When the switch is angled **UP**, the alarm clear events is disabled. When disabled, LED and/or speaker will not blink nor sound when alarms clear and therefore do not require a local technician to Ack alarm clear events when configured this way.

8 Troubleshooting

Alarm Notification: If you experience problems with BSU alarm notification, test the unit by simulating an alarm. Reversing the polarity of the alarm and the associated DIP switches is an easy way to test alarm notification.

LED Flash: Each alarm LED should **FLASH** when an alarm or clear occurs until the LOCAL ACK button is pressed. If the LED does not flash red, check the LED light and the input power.

Speaker Sound: The speaker should sound each time an alarm notification occurs. If you notice the red light flashing but don't hear sound from the speaker, make sure the volume is turned up.

Acknowledge Button: The LOCAL ACK button will stop the LED flashing and the speaker notification each time a new alarm occurs.

Fuse Alarm: If for any reason the power fuse of the BSU should fail, the Fuse Alarm (FA) LED on the front of the unit will light. Remove failed fuse and replace with a new one.

9 Technical Support

DPS Telecom products are backed by our courteous, friendly Technical Support representatives, who will give you the best in fast and accurate customer service. To help us help you better, please take the following steps before calling Technical Support:

1. **Check the DPS Telecom website.**
   You will find answers to many common questions on the DPS Telecom website, at
   http://www.dpstele.com/support
   Look here first for a fast solution to your problem.

2. **Prepare relevant information.**
   Having important information about your DPS Telecom product in hand when you call will greatly reduce the time it takes to answer your questions. If you do not have all of the information when you call, our Technical Support representatives can assist you in gathering it. Please write the information down for easy access. Please have ready your User Manual and hardware serial number.

3. **Have access to troubled equipment.**
   Please be at or near your equipment when you call DPS Telecom Technical Support. This will help us solve your problem more efficiently.

4. **Call during Customer Support hours.**
   Customer support hours are Monday through Friday, from 7 A.M. to 6 P.M., Pacific time. During these hours Technical Support representatives are on duty in our fully equipped simulation lab.

Emergency Assistance: *Emergency assistance is available 24 hours a day, 7 days a week. For emergency assistance after hours, allow the phone to ring until it is answered with a paging message. You will be asked to enter your phone number. An on-call technical support representative will return your call as soon as possible.*

10 End User License Agreement

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DPS Telecom's warranty and limitation on its liability for the Software is as described in the warranty information provided to End User in the Product Manual.
End User shall indemnify DPS Telecom and hold it harmless for and against any and all claims, damages, losses, costs, expenses, obligations, liabilities, fees and costs and all amounts paid in settlement of any claim, action or suit which may be asserted against DPS Telecom which arise out of or are related to the non-fulfillment of any covenant or obligation of End User in connection with this Agreement.

This Agreement shall be construed and enforced in accordance with the laws of the State of California, without regard to choice of law principles and excluding the provisions of the UN Convention on Contracts for the International Sale of Goods. Any dispute arising out of the Agreement shall be commenced and maintained only in Fresno County, California. In the event suit is brought or an attorney is retained by any party to this Agreement to seek interpretation or construction of any term or provision of this Agreement, to enforce the terms of this Agreement, to collect any money due, or to obtain any money damages or equitable relief for breach, the prevailing party shall be entitled to recover, in addition to any other available remedy, reimbursement for reasonable attorneys' fees, court costs, costs of investigation, and other related expenses.

Warranty

DPS Telecom warrants, to the original purchaser only, that its products a) substantially conform to DPS' published specifications and b) are substantially free from defects in material and workmanship. This warranty expires two years from the date of product delivery with respect to hardware and ninety days from the date of product delivery with respect to software. If the purchaser discovers within these periods a failure of the product to substantially conform to the specifications or that the product is not substantially free from defects in material and workmanship, the purchaser must promply notify DPS. Within reasonable time after notification, DPS will endeavor to correct any substantial non-conformance with the specifications or substantial defects in material and workmanship, with new or used replacement parts. All warranty service will be performed at the company's office in Fresno, California, at no charge to the purchaser, other than the cost of shipping to and from DPS, which shall be the responsiblity of the purchaser. If DPS is unable to repair the product to conform to the warranty, DPS will provide at its option one of the following: a replacement product or a refund of the purchase price for the non-conforming product. These remedies are the purchaser's only remedies for breach of warranty. Prior to initial use the purchaser shall have determined the suitability of the product for its intended use. DPS does not warrant a) any product, components or parts not manufactured by DPS, b) defects caused by the purchaser's failure to provide a suitable installation environment for the product, c) damage caused by use of the product for purposes other than those for which it was designed, d) damage caused by disasters such as fire, flood, wind or lightning unless and to the extent that the product specification provides for resistance to a defined disaster, e) damage caused by unauthorized attachments or modifications, f) damage during shipment from the purchaser to DPS, or g) any abuse or misuse by the purchaser.

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In no event will DPS be liable for any special, incidental, or consequential damages based on breach of warranty, breach of contract, negligence, strict tort, or any other legal theory. Damages that DPS will not be responsible for include but are not limited to, loss of profits; loss of savings or revenue; loss of use of the product or any associated equipment; cost of capital; cost of any substitute equipment, facilities or services; downtime; claims of third parties including customers; and injury to property.

The purchaser shall fill out the requested information on the Product Warranty Card and mail the card to DPS. This card provides information that helps DPS make product improvements and develop new products.

For an additional fee DPS may, at its option, make available by written agreement only an extended warranty providing an additional period of time for the applicability of the standard warranty.

Technical Support

If a purchaser believes that a product is not operating in substantial conformance with DPS' published specifications or there appear to be defects in material and workmanship, the purchaser should contact our technical support representatives. If the problem cannot be corrected over the telephone and the product and problem are covered by the warranty, the technical support representative will authorize the return of the product for service and provide shipping information. If the product is out of warranty, repair charges will be quoted. All non-warranty repairs receive a 90-day warranty.

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